BIBLIOGRAPHIC REFERENCE DATA STANDARD

Standard No.: EX000007.1

January 6, 2006

This standard has been produced through the Environmental Data Standards Council (EDSC).

The Environmental Data Standards Council (EDSC) is a partnership among US EPA, States and Tribal partners to develop and agree upon data standards for environmental information collection and exchange. More information about the EDSC is available at http://www.envdatastandards.net.

Foreword

The Environmental Data Standards Council identifies, prioritizes and pursues the creation of data standards for those areas where information exchange standards will provide the most value in achieving environmental results. The Council involves Tribes and Tribal Nations, state and federal agencies in the development of the standards and then provides the draft materials for general review. Business groups, non-governmental organizations, and other interested parties may then provide input and comment for Council consideration and standard finalization. Draft and final standards are available at http://www.envdatastandards.net.

1.0 INTRODUCTION

The Bibliographic Reference Data Standard specifies data groupings that may be used to identify the characteristics and/or catalog a referenced digital data item/object.

1.1 Scope

This standard provides a group of data elements that are used to describe reference-related materials.

1.2 Revision History

Date	Version	Description
January 6, 2006	EX000007.1	Initial Environmental Data Standards Council Adoption

1.3 References to Other Data Standards

This standard relies on other standards to make it complete and provide the necessary support. As such users should consider the references to other data standards noted below as integral to the Bibliographic Reference Data Standard. These include:

- Representation of Date and Time [EX000013.1] Data Standard

1.4 Terms and Definitions

For the purposes of this document, the following terms and definitions apply.

Term	Definition
Bibliographic Reference	Descriptors used to identify or catalog a particular resource.

1.5 Implementation

Users are encouraged to use the XML registry housed on the Exchange Network Web site to download schema components for the construction of XML schema flows (http://www.exchangenetwork.net).

1.6 Document Structure

The structure of this document is briefly described below:

a. Section 2.0 Bibliographic Reference Data Standard Diagram, illustrates the principal data groupings contained within this standard.

b. Section 3.0 Bibliographic Reference Data Standard Table, provides information on the high level, intermediate and elemental Bibliographic Reference data groupings. Where applicable, for each level of this data standard a definition, XML tag, note(s), example list of values and format are provided. The format column may include “A” to specify alphanumeric, “N” to designate numeric, “G” to denote a grouping, and “D” for time and date formats referenced in the Bibliographic Reference Data Standard.

c. Data Element Numbering: For purposes of clarity and to enhance understanding of data standard hierarchy and relationships, each data group is numerically classified from the primary to the elemental level.

d. Code and Identifier Metadata: Metadata, defined here as data about data or data elements, includes their descriptions and/or any needed context setting information required to identify the origin, conditions of use, interpretation, or understanding the information being exchanged or transferred. (Adapted from ISO/IEC 2382-17:1999 Information Technology Vocabulary—Part 17: Databases 17.06.05 metadata). Based on the business need, additional metadata may be required to sufficiently describe an identifier or a code. A note regarding this additional metadata is included in the notes column for identifier and code elements. Additional metadata for identifiers may include:

    - Code List Identifier, which is a standardized reference to the context or source of the set of codes

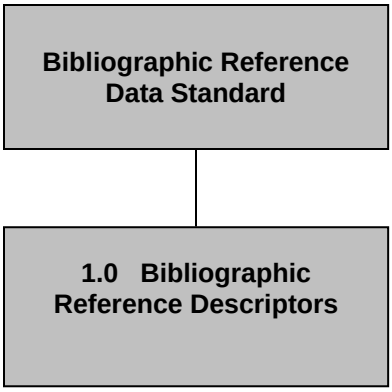
    Additional metadata for codes may include:

    - Code List Identifier, which is a standardized reference to the context or source of the set of codes
    - Code List Version Identifier, which identifies the particular version of the set of codes.
    - Code List Version Agency Identifier, which identifies the agency responsible for maintaining the set of codes
    - Code List Name, which describes the corresponding name for which the code represents

e. Appendix A, Bibliographic Reference Data Standard Structure Diagram illustrates the hierarchical classification of the Bibliographic Reference data standard. This diagram enables business and technical users of this standard to quickly understand its general content and complexity. Appendix B, lists the references for the Bibliographic Reference Data Standard.

2.0 BIBLIOGRAPHIC REFERENCE DATA STANDARD DIAGRAM

This diagram specifies the major data groups that may be used to identify the characteristics and/or to catalog a bibliographic reference.



3.0 BIBLIOGRAPHIC REFERENCE DATA STANDARD TABLE

1.0 Bibliographic Reference Descriptors

Definition: The descriptors used to identify and catalog an object.
Relationships: None.
Notes:

- The items below are taken from ISO 15836:2003 Information and Documentation - Dublin Core Metadata Element Set
- There are internationally accepted XML Schemas for the Dublin Core Metadata Elements.

XML Tag: BibliographicReferenceDescriptors

Name	Definition	Notes	Format	XML Tags
1.1 Resource Title Name	A name given to the resource.	Example List of Values: • ABC Company NPDES Compliance Sampling Chain of Custody: 12/31/2003 • *PA List of Reference and Equivalent Methods, August 16, 2004 http://www.epa.gov/ttn/amtic/files/ambient/criteria/ref804.pdf* *Note:* This is from ISO 15836:2003 Information and documentation - The Dublin Core metadata element set Element name is "Title".	A	ResourceTitleName

Name	Definition	Notes	Format	XML Tags
1.2 Resource Creator Name	An entity primarily responsible for making the content of the resource.	*Note:* Examples of Creator include a person, an organization, or a service. Typically, the name of a Creator should be used to indicate the entity. Example List of Values: • US EPA • National Exposure & Atmospheric Science Division • Human Exposure & Atmospheric Sciences Division (MD-D205-03) RTP, NC 27711 *Note:* This is from ISO 15836:2003 Information and documentation - The Dublin Core metadata element set Element name is "Creator".	A	ResourceCreatorName
1.3 Resource Subject Text	A topic of the content of the resource.	*Note:* Typically, Subject will be expressed as keywords, key phrases, or classification codes that describe a topic of the resource. Recommended best practice is to select a value from a controlled vocabulary or formal classification scheme. Example List of Values: • Air Sampling Methodology • Medium Volume Sampler • PM_{10} *Note:* This is from ISO 15836:2003 Information and documentation - The Dublin Core metadata element set Element name is "Subject".	A	ResourceSubjectText

Name	Definition	Notes	Format	XML Tags
1.4 Resource Description Text	An account of the content of the resource.	Example List of Values: • Abstract • Table of contents • Graphical representation of content • Graphical representation of free-text content *Note:* This is from ISO 15836:2003 Information and documentation - The Dublin Core metadata element set Element name is "Description".	A	ResourceDescriptionText
1.5 Resource Publisher Name	An entity responsible for making the resource available.	*Note:* Examples of Publisher include a person, an organization, or a service. Typically, the name of a Publisher should be used to indicate the entity. Example Value: • US EPA • National Exposure & Atmospheric Science Division • Human Exposure & Atmospheric Sciences Division (MD-D205-03) RTP, NC 27711 *Note:* This is from ISO 15836:2003 Information and documentation - The Dublin Core metadata element set Element name is "Publisher".	A	ResourcePublisherName

Name	Definition	Notes	Format	XML Tags
1.6 Resource Contributor Name	An entity responsible for making contributions to the content of the resource.	*Note:* Examples of Contributor include a person, an organization, or a service. Typically, the name of a Contributor should be used to indicate the entity. Example Value: • Oregon Department of Environmental Quality *Note:* This is from ISO 15836:2003 Information and documentation - The Dublin Core metadata element set Element name is "Contributor".	A	ResourceContributorName
1.7 Resource Date	A date of an event in the lifecycle of the resource.	*Note:* Typically, Date will be associated with the creation or availability of the resource. Recommended best practice for encoding the date value is defined in a profile of ISO 8601 [W3CDTF] and includes (among others) dates of the form YYYYMMDD. *Note:* This is from ISO 15836:2003 Information and documentation - The Dublin Core metadata element set Element name is "Date".	D	ResourceDate

Name	Definition	Notes	Format	XML Tags
1.8 Resource Type Code	The nature or genre of the content of the resource.	*Note:* Type includes terms describing general categories, functions, genres, or aggregation levels for content. Recommended best practice is to select a value from a controlled vocabulary (for example, the DCMI Type Vocabulary [DCT]). To describe the physical or digital manifestation of the resource, use the Format element. *Note:* This is from ISO 15836:2003 Information and documentation - The Dublin Core metadata element set Element name is "Type".	A	ResourceTypeCode
1.9 Resource Content Format Name	The physical or digital manifestation of the resource.	*Note:* Typically, Format will include the media-type or dimensions of the resource. Format may be used to identify the software, hardware, or other equipment needed to display or operate the resource. Examples of dimensions include size and duration. Recommended best practice is to select a value from a controlled vocabulary (for example, the list of Internet Media Types [MIME] defining computer media formats). Examples: “image/jpeg”, “text/html”, “video/mpeg”. Potential Example List take from W3C registered MIME Content Types. *Note:* This is from ISO 15836:2003 Information and documentation - The Dublin Core metadata element set Element name is "Format".	A	ResourceContentFormatName

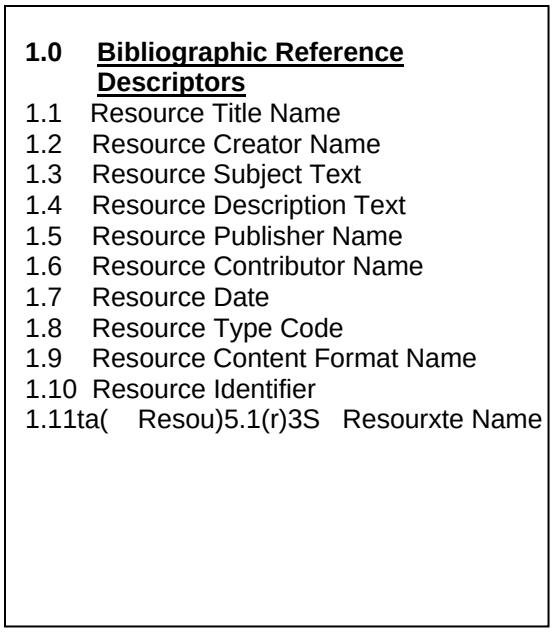
Name	Definition	Notes	Format	XML Tags
1.10 Resource Identifier	An unambiguous reference to the resource within a given context.	*Note:* Recommended best practice is to identify the resource by means of a string or number conforming to a formal identification system. Formal identification systems include but are not limited to the Uniform Resource Identifier (URI) (including the Uniform Resource Locator (URL)), the Digital Object Identifier (DOI), and the International Standard Book Number (ISBN). Example List of Values: • List of Reference Methods: http://www.epa.gov/ttn/amtic/files/ambient/criteria/ref804.pdf • EPA Manual Reference Method: RFPS-0389-071 [Federal Register: Vol. 54, page 12273, 03/24/89] *Note:* This is from ISO 15836:2003 Information and documentation - The Dublin Core metadata element set Element name is "Identifier". Based on the business need, additional metadata may be required to sufficiently describe an identifier. This additional metadata is described in the Introduction section, 1.6.d, above.	A	ResourceIdentifier

Name	Definition	Notes	Format	XML Tags
1.11 Resource Source Text	A reference to a resource from which the present resource is derived.	*Note:* The present resource may be derived from the Source resource in whole or in part. Recommended best practice is to identify the referenced resource by means of a string or number conforming to a formal identification system. *Note:* This is from ISO 15836:2003 Information and documentation - The Dublin Core metadata element set Element name is "Source".	A	ResourceSourceText
1.12 Resource Language Name	A language of the intellectual content of the resource.	*Note:* Recommended best practice is to use RFC 3066 [RFC3066], which, in conjunction with ISO 639 [ISO639], defines two- and three-letter primary language tags with optional subtags. Examples include “en” or “eng” for English, “akk" for Akkadian, and “en-GB” for English used in the United Kingdom. Note: This is from ISO 15836:2003 Information and documentation - The Dublin Core metadata element set Element name is "Language".	A	ResourceLanguageName
1.13 Resource Relation Text	A reference to a related resource.	*Note:* Recommended best practice is to identify the referenced resource by means of a string or number conforming to a formal identification system. *Note:* This is from ISO 15836:2003 Information and documentation - The Dublin Core metadata element set Element name is "Relation".	A	ResourceRelationText

Name	Definition	Notes	Format	XML Tags
1.14 Resource Coverage Text	The extent or scope of the content of the resource.	*Note:* Typically, Coverage will include spatial location (a place name or geographic coordinates), temporal period (a period label, date, or date range), or jurisdiction (such as a named administrative entity). Recommended best practice is to select a value from a controlled vocabulary (for example, the Thesaurus of Geographic Names [TGN]) and to use, where appropriate, named places or time periods in preference to numeric identifiers such as sets of coordinates or date ranges. Example List of Values: • Spatial Location: United States and Territories • Date Method Effective: 03/24/1989 to present *Note:* This is from ISO 15836:2003 Information and documentation - The Dublin Core metadata element set Element name is "Coverage".	A	ResourceCoverageText

Name	Definition	Notes	Format	XML Tags
1.15 Resource Rights Text	Information about rights held in and over the resource.	*Note:* Typically, Rights will contain a rights management statement for the resource, or reference a service providing such information. Rights information often encompasses Intellectual Property Rights (IPR), Copyright, and various Property Rights. If the Rights element is absent, no assumptions may be made about any rights held in or over the resource. *Note:* This is from ISO 15836:2003 Information and documentation - The Dublin Core metadata element set Element name is "Rights".	A	ResourceRightsText

Appendix A
Bibliographic Reference Data Standard Structure Diagram



Appendix B
References

i. ISO/IEC 2382-17:1999 Information Technology Vocabulary—Part 17: Databases 17.06.

ii. ISO 15836:2003 Information and Documentation – Dublin Core Metadata Element Set (DCMI)

iii. ANSI/NISO Z39.85-2001 – The Dublin Core Metadata Element Set (DCMI)

The XML schema reference is in use in projects or products using DCMI metadata: Simple DC XML Schema, version 2002-12-12. This schema defines terms for Simple Dublin Core, i.e. the 15 elements from the http://purl.org/dc/elements/1.1/ namespace, with no use of encoding schemes or element refinements. The most recent version may be found at: http://dublincore.org/schemas/xmls/.